

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-16 (Canceled).

Claim 17 (New): A substrate processing method for forming a layer insulating film on a semiconductor substrate by spin coating, comprising steps of:

- (a) regulating the temperature of the substrate to a predetermined substrate temperature  $T_S$ ;
- (b) regulating the temperature of an adhesion promoter solution serving as a first processing solution to a predetermined processing solution temperature  $T_L$ ;
- (c) bringing the substrate into a cup and holding the substrate substantially horizontally on a spin chuck with a front surface of the substrate facing up;
- (d) cooling the substrate when the processing solution temperature  $T_L$  is higher than the substrate temperature  $T_S$ , and heating the substrate in an inert atmosphere when the processing solution temperature  $T_L$  is lower than the substrate temperature  $T_S$ ;
- (e) while rotating the substrate by the spin chuck, supplying the first processing solution onto the front surface of the substrate and spreading the first processing solution over the front surface of the substrate by action of centrifugal force, thereby adhesion-promoting the front surface of the substrate with the first processing solution;
- (f) removing the first processing solution from the substrate by further rotating the substrate by the spin chuck, thereby drying the front surface of the substrate; and
- (g) while supplying a film forming solution serving as a second processing solution onto the front surface of the substrate, rotating the substrate by the spin chuck and spreading the second processing solution over the front surface by action of centrifugal force, thereby forming a layer insulating film,

wherein the steps (d) to (g) are continuously performed in the cup of step (c).